

## Franklin Hollander (1899–1966)

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FRANKLIN HOLLANDER (Fig.) was born in New York on January 19, 1899 and educated there (1–3). While studying for his B.S. in mathematics and chemistry at Columbia (1919), he worked as an assistant and instructor in chemistry (1917–1923); he received his Ph.D. in physical organic chemistry in 1924 after a year as a research chemist in the petroleum industry. After spending a further year as a consultant in chemistry, he began a 40-year career in physiology and physiological chemistry. Hollander became a medical fellow of the National Research Council with Lafayette Mendel at Yale from 1925–1927, studying gastric secretion. He then did a five-year stint as assistant professor in physiology at New York Medical College, taking his pouch dogs every summer to the biology laboratory of Cold Spring Harbor, Long Island.

From 1934–1936, Hollander was research associate and secretary of the Columbia University Dental Caries Research Group. With his mathematical skills and the statisticians of the Metropolitan Life Insurance Company, he studied the incidence of dental caries in a control population of more than 12,000 persons and in a group presenting for dental treatment. He found that the total number of decayed tooth surfaces per person was a more sensitive index of the extent of dental disease than the number of decayed teeth per person (4).

Hollander's final 30 years were spent at Mount Sinai, as chief of the gastrointestinal physiology research laboratory. During these years,



Fig. Dr. Franklin Hollander.

he had many outside scientific commitments, as lecturer (later assistant clinical professor) at Columbia and as research adviser on chemical warfare (1943–1944), working on the therapeutic use of aerosols in gas casualties.

From 1954–1959, he was consultant in gastric physiology to the cancer center division of the New York City Department of Health, and from 1960, a member of the NIH Research Grants general medicine study section. He was associate editor of the *American Journal of Digestive Diseases and Nutrition* from 1940–1943, when

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he took a similar position with the new journal, *Gastroenterology*, becoming its abstract editor in 1953. From 1961, he was on the editorial board of the *Journal of Applied Physiology* and the *American Journal of Physiology*, and from 1963, the section editor for the latter for gastrointestinal physiology.

Hollander saw his role at The Mount Sinai Hospital as many faceted (5), but his first priority was research into physiological problems of immediate clinical importance in the hospital. His laboratory, in conjunction with the clinical staff, helped evaluate the efficacy of the intragastric drip for peptic ulcer, a new statistical procedure for assessing the results of ulcer surgery, a new bioassay for male sex hormone in urine, a study on the effect of artificial fever on gastric secretion, his insulin test for vagus nerve continuity, and a synthetic diet for jejunal feeding. His second aim was to pursue basic long-range physiological problems, in light of John Dewey's maxim that "it does not pay to tether one's thoughts to the post of usefulness with too short a rope." With this purpose in mind, Hollander studied the mechanism by which hydrochloric acid is produced in the stomach, and the role of mucus in gastritis, peptic ulcer, stomach cancer, and human sterility. His third role was in postgraduate education, teaching classes in normal and pathological physiology, and in statistical methods, as well as taking part in the various conferences, grand rounds and seminars. Fourthly, he gave both general and specific advice to other departments in the construction of their own formal research projects.

Despite his many activities, Hollander always considered his role as director of the gastrointestinal physiology laboratory as his principal one. Recruited by Drs. Ralph CoIp and John Garlock, each director of a surgical service, Hollander arrived at Mount Sinai at a time when gastroen-

terology was a branch of surgery. Thus, he was a Ph.D. in a sea of M.D.s. By his influence, gastroenterology at The Mount Sinai Hospital took its place as a scientific discipline. Although unable to deal with patients in the hospital directly, he soon attracted a group of young, eager and talented physicians and surgeons with whom he carried on a fruitful collaboration and in whom he took pride. These included Albert Cornell, Asher Winklestein, Vernon Weinstein, Henry Janowitz, David Dreiling, and Lawrence Werther.

Of his own achievements, it is clear from his writings and private comments that he valued most his description of the composition of the two components of gastric juice (the parietal and the non-parietal; see chapter 9), and the two components of the gastric mucosal barrier (see chapter 11).

Hollander was a strict and firm mentor who demanded clear hypotheses and supporting statistics before allowing a new research project to go forward. His wit was a dry one, but his personal support was generous. For thirty or more years, his tact in managing the conflicting demands of administrators, physicians, surgeons, and would-be scientists allowed him to maintain the integrity of his research laboratory, which could not continue without him after his untimely death from cancer of the pancreas.

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